

Revised Strong Interest Inventory® assessment: Gender and vocational interest similarity

**Michael L. Morris, Richard C. Thompson,
David A.C. Donnay, and Nancy A. Schaubhut**
CPP, Inc

How similar are women and men in the same occupations? Has this similarity changed over time or does it vary by the Holland (1997) Theme of occupation? These questions were examined by analyzing correlations between male and female occupational scale scores on the newly revised Strong Interest Inventory® assessment with a nationally representative sample of 2,250 employed women and men. Results indicated women and men in the same occupations generally have similar interests, that similarity of interests have been consistent over time, and that women and men in Realistic and Conventional occupations have less similar interests than people in other occupations.

Women and men differ in their vocational interests (Betz, 1993; Hackett & Lonborg, 1993). As a result, most leading vocational interest inventories, such as the newly revised Strong Interest Inventory® assessment, include gender as a factor in the construction of scales. Gender is also of major importance when interpreting results (Betz, 1992). An individual taking the newly revised Strong®, for example, will be provided gender-appropriate scale scores assessing that individual's similarity to people employed in various occupations. The implicit assumption is that the interests of women and men in the same occupation may be different, creating a need for gender-appropriate scores.

But how similar are the interests of women and men in the same occupations? Research on the newly revised Strong provided an opportunity to compare the interests of women and men across 122 diverse occupations using data collected over the past 20 years.

The primary questions of interest here were: 1) In general, how similar are the interests of women and men in the same occupations? 2) Has similarity between women and men in the same occupations changed over time? 3) Does similarity vary by type of occupation, as classified by Holland (1997) Themes?

Method

To address these questions, the 122 male and 122 female occupation scale (OSs) scores from the newly revised Strong assessment were correlated using a General Representative Sample of 2250 (1125 males, 1125 females) employed adults. This sample was selected to approximate the general population of the United States in terms of gender, age, and ethnicity.

All OSs were constructed empirically by contrasting an occupation sample with a same gendered sample of employed adults. As a result, correlations between corresponding female and male OSs

can be considered indexes of similarity between women and men in those occupations. All correlation coefficients were analyzed after performing a Fisher r-to-z transformation (transformed back for reporting purposes).

Results

How similar are the interests of women and men in the same occupations? Results indicated the interests of women and men in the same occupations are generally very similar ($M = .85$), although there are several in which they are decidedly different, such as Retail Sales Representative ($r = .40$), Food Service Manager ($r = .42$), Production Worker ($r = .47$), Cosmetologist ($r = .53$), and Administrative Assistant ($r = .54$).

Has similarity changed over time? To evaluate this question, a one-way ANOVA was performed on the correlations for three groups of OSs. The three groups of OSs were based on occupation samples collected for the 1985 ($n = 52$), 1994 ($n = 46$), and 2004 ($n=24$) Strong Interest Inventory® assessments. Results showed no significant differences, indicating that the similarity of women and men in the same occupations has not changed over time, $F(2, 121) < 1$.

Does similarity between women and men vary by the Holland Theme of the occupation? To address this question, a one-way ANOVA was performed on the correlations using Holland Theme as the factor. Results indicated significant differences, $F(5, 243) = 11.77, p < .001$. Post-hoc Tukey HSB results indicated

Conventional (mean $r = .74$) and Realistic (mean $r = .79$) Theme occupations had the lowest similarity between women and men. Investigative, Artistic, Social, and Enterprising Theme similarity scores were not significantly different (see Table 1).

Table 1
Mean OS correlations by Holland Theme

	n	M	SD
R	35	.79 _{a, b}	.13
I	46	.89 _c	.09
A	44	.89 _c	.06
S	40	.87 _c	.10
E	45	.85 _{b, c}	.15
C	34	.74 _a	.15

Note: Shared subscripts indicate non-significant differences.

Discussion

The results of this study point clearly to the conclusion that women and men in the same occupations tend to share the same interests and that they have for some time. Similarity was consistent across OSs based on samples collected in the '80s, '90s and in the last two years. These relatively high correlations between OS scores are particularly noteworthy given that OSs were empirically constructed to separate each occupation sample from a general sample of employed adults, without regard to item content.

Similarity does vary based on the Holland Theme of the occupation, a particularly noteworthy finding. This is

consistent with the historical association of men with Realistic occupations and women with Conventional occupations (Betz, Heesacker, & Shuttlesworth, 1990), suggesting that perhaps women and men are drawn to those occupations for different reasons.

This study supports the long tradition of evaluating the vocational interest of women and men separately. Although women and men in the same occupations appear to have very similar interests, there are several occupations for which this is not the case, and the results of this study suggest that similarity varies systematically by the Theme of the occupation.

There are some limiting factors to this study. First, there are some confounds. For example, there were only five Conventional occupation samples out of 34 from 1985 Strong revision, which opens the possibility that potential differences in similarity over time were masked due to the types of occupations sampled during those time periods. Second, there were occasional differences in the methods used to collect the male and female samples for

a particular occupation. These sampling differences could easily affect the correlations between males and females in those occupations.

Future researchers may want to more closely examine the interests of women and men in the same occupations, with an eye toward simplifying the construction and interpretation of interest inventories such as the Strong Interest Inventory® assessment. Other avenues might include a more controlled examination of similarity over time, especially in those occupations where the ratio of males to females has changed. In addition, it may be fruitful to research the factors that lead males and females in Realistic and Conventional occupations, such as compensation, historical participation rates, and discrimination.

Vocational interest inventories such as the Strong Interest Inventory® assessment have long included gender as a factor in construction and interpretation, an approach supported by the results of this study. For most occupations, though, women and men are much more alike than they are different.

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